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09/727,906	11/30/2000	Vijnan Shastri	P3723	3693

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EXAMINER

WILLETT, STEPHAN F

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/727,906

Applicant(s)

SHASTRI, VIJNAN

Examiner

Stephan F Willett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The “multimedia media” is unclear, thus media was ignored.

***Claim Rejections - 35 USC 102***

3. The following is a quotation of the appropriate paragraphs of 35 U. S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Ballard with Patent Number 6,078,960.

5. Regarding claim(s) 1-2, 6, Ballard teaches a first server node, a client node coupled to the first server and an alternate second server connected to the network also, accessible to the client as “network server computers”, col. 3-4, lines 66-4. Ballard teaches a software module as “load

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balancing device”, col. 5, lines 28-41. Ballard teaches monitoring quality of service values from the servers or data input for receiving data, col. 5, lines 42-48 and switching communications between server nodes based on an analytical function of load, col. 6, lines 1-2. Ballard teaches switching is based on a comparison of performance data collected as “percentages are seeds for the server selection function”, col. 6, lines 34-41 wherein switching is deciding between at least two alternative servers.

6. Regarding claim(s) 3, Ballard teaches data comprising streaming multimedia content, col. 3, line 60.

7. Regarding claim(s) 4, Ballard teaches the software module or balancer residing at the client location or computer, col. 6, lines 1-2.

8. Regarding claim(s) 5, Ballard teaches the software module operating transparently to a user as “client computer executes a server selection function” since the computer executes the function not the user , col. 6, lines 34-35.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable Ballard with Patent Number 6,078,960 in view of Kenner et al. with Patent Number 6,112,239.

11. Regarding claim(s) 7, Ballard teaches a first server node, a client node coupled to the first server and an alternate second server connected to the network also, accessible to the client as “network server computers”, col. 3-4, lines 66-4. Ballard teaches a software module as “load balancing device”, col. 5, lines 28-41. Ballard teaches monitoring quality of service values from the servers or data input for receiving data, col. 5, lines 42-48 and switching communications between server nodes based on an analytical function of load, col. 6, lines 1-2. Ballard teaches switching is based on a comparison of performance data collected as “percentages are seeds for the server selection function”, col. 6, lines 34-41 wherein switching is deciding between at least two alternative servers. Ballard teaches the invention in the above claim(s) except for explicitly teaching termination of a current connection and establishing a replacement server connection based on performance data. In that Ballard operates to load balance in a computer network, the artisan would have looked to the network load balancing arts for details of implementing various load balancing scenarios. In that art, Kenner, a related network data balancing communication system, teaches “an individual user can be routed away from it”, col. 11, line 41 in order to provide different balancing capability. Kenner specifically teaches “the user might become dissatisfied [termination] ... the user is free to rerun the configuration utility [which will suggest a replacement server based current load data]”, col. 14, lines 16-26 and at col. 16, lines 29-32. Further, Kenner suggests “the player program can prompt the user to rerun the configuration program”, col. 14, lines 25-25 which will naturally result from implementing load balancing based on the subject matter as a whole as would have been understood at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. The motivation to incorporate server reselection insures current user’s needs are met. Thus, it would

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have been obvious to one of ordinary skill in the art to incorporate server reselection as taught in Kenner into the communication balancing system described in Ballard because Ballard operates with server selection and Kenner suggests that optimization can be obtained by specifically applying well known server reselection techniques. Therefore, by the above rational, the above claims are rejected.

12. Regarding claim(s) 8, Ballard teaches the software module or balancer residing at the client location or computer, col. 6, lines 1-2.

13. Regarding claim(s) 9, Ballard teaches the software module operating transparently to a user as "client computer executes a server selection function" since the computer executes the function not the user, col. 6, lines 34-35.

14. Regarding claim(s) 10, Ballard teaches data is compared to a pre-set threshold such as "number of connections", col. 5, lines 46-48.

15. Regarding claim(s) 11, Kenner teaches collected data is equated to a point system as "ranking", col. 13, lines 31-32 and assigning values to data as saving the configuration files, col. 13, lines 45-47 including "file transfer performance", col. 16, lines 9-10.

16. Regarding claim(s) 12, Kenner teaches an option to switch servers is presented to the user as "the player program can prompt the user to rerun the configuration program" "to predict an improved delivery site", col. 14, 16, lines 25-25, 30-31, respectively..

17. Regarding claim(s) 13, Ballard teaches a first server node, a client node coupled to the first server and an alternate second server connected to the network also, accessible to the client as "network server computers", col. 3-4, lines 66-4. Ballard teaches a software module as "load balancing device", col. 5, lines 28-41. Ballard teaches monitoring quality of service values from

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the servers or data input for receiving data, col. 5, lines 42-48 and switching communications between server nodes based on an analytical function of load, col. 6, lines 1-2. Ballard teaches switching is based on a comparison of performance data collected as “percentages are seeds for the server selection function”, col. 6, lines 34-41. Ballard teaches the invention in the above claim(s) except for explicitly teaching performance of network paths or estimating performance to an alternate server. In that Ballard operates to load balance in a computer network, the artisan would have looked to the network load balancing arts for details of implementing various load balancing scenarios. In that art, Kenner, a related network data balancing communication system, teaches “an individual user can be routed away from it”, col. 11, line 41 in order to provide different balancing capability. Kenner specifically teaches “Ping”, etc., col. 10, lines 11-54 and at col. 4, lines 39-41 and estimation or prediction of an alternative server, col. 16, lines 34-42. Further, Kenner suggests “the player program can prompt the user to rerun the configuration program”, col. 14, lines 25-25 which will naturally result from implementing load balancing based on the subject matter as a whole as would have been understood at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. The motivation to incorporate path performance and estimations insures performance is further fine tuned. Thus, it would have been obvious to one of ordinary skill in the art to incorporate path performance and estimations as taught in Kenner into the communication balancing system described in Ballard because Ballard operates with server selection and Kenner suggests that optimization can be obtained by specifically applying well known server reselection techniques using known path performance and estimation techniques. Ballard teaches the invention in the above claim(s) except for explicitly teaching initiating a client server

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switch. In that Ballard operates to load balance in a computer network, the artisan would have looked to the network load balancing arts for details of implementing various load balancing scenarios. In that art, Kenner, a related network data balancing communication system, teaches “an individual user can be routed away from it”, col. 11, line 41 in order to provide different balancing capability. Kenner specifically teaches “the user might become dissatisfied [termination] ... the user is free to rerun the configuration utility [which will suggest a replacement server based current load data]”, col. 14, lines 16-26 and at col. 16, lines 29-32. Further, Kenner suggests “the player program can prompt the user to rerun the configuration program”, col. 14, lines 25-25 which will naturally result from implementing load balancing based on the subject matter as a whole as would have been understood at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. The motivation to incorporate server reselection insures current user’s needs are met. Thus, it would have been obvious to one of ordinary skill in the art to incorporate server reselection as taught in Kenner into the communication balancing system described in Ballard because Ballard operates with server selection and Kenner suggests that optimization can be obtained by specifically applying well known server reselection techniques. Therefore, by the above rational, the above claims are rejected.

18. Regarding claim(s) 14, Ballard teaches monitored results are continuously compared against thresholds, col. 6, lines 54-57 and data is compared to a pre-set threshold such as “number of connections”, col. 5, lines 46-48.

19. Regarding claim(s) 15, Ballard teaches the software module or balancer residing at the client location or computer, col. 6, lines 1-2 and an option to switch servers is presented to the



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user or user directed as "the player program can prompt the user to rerun the configuration program" "to predict an improved delivery site", col. 14, 16, lines 25-25, 30-31, respectively.

### ***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is disclosed in the Notice of References Cited. A close review of the references is suggested. A close review of the Bhaskaran et al. reference with Patent Number 6,601,084 is suggested. The other references cited teach numerous other ways to perform load balancing, thus a close review of them is suggested.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephan Willett whose telephone number is (703) 308-5230. The examiner can normally be reached Monday through Friday from 8:00 AM to 6:00 PM.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

23. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9605.



Stephan Willett

Patent Examiner

May 11, 2004